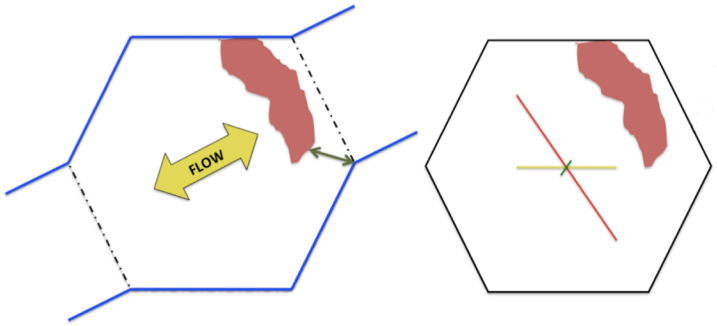
CCFP En Route Impact Viewer Quick Reference

http://esrl.noaa.gov/fiqas/tech/impact/ccfp/

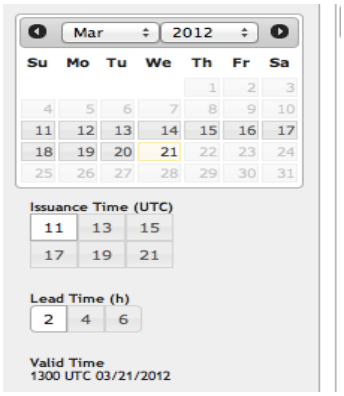
The main purpose of this tool is to provide visual representation and summary statistics of CCFP and CIWS observations in an impact framework relative to strategic air traffic management.

CCFP En Route Impact Viewer is based on the Flow Constraint Index, which serves as a proxy for the permeability of airspace. Overlaying regular hexagons with hexagon height equal to 300 NM over the CONUS, which is approximately the size of the ZNY ARTCC, represents operationally relevant airspaces. The length of the impact lines are proportional to the impact given an implied flow through a given corridor defined by the hexagon sizes.

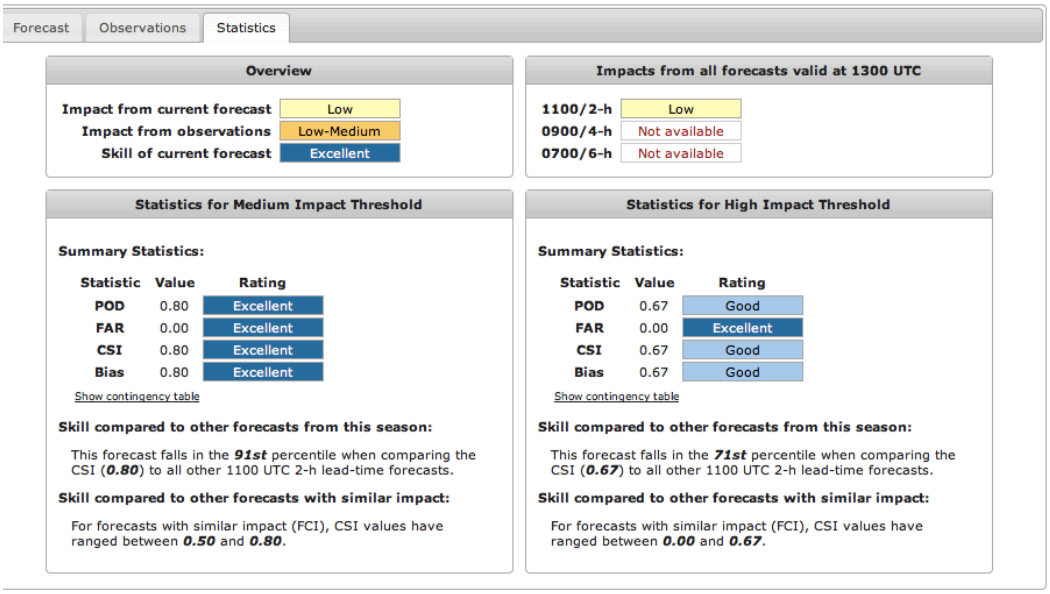


Green represents low impact (FCI values less than 0.10), yellow represents medium (FCI values between 0.10 and 0.35), and red represents high (FCI values 0.35 and above) for flow perpendicular to each line.

Select a date and time of interest



To select a date and time of interest, first find the month and year of interest from the drop down tabs. Click the date of interest, then select an issuance time and final a lead time of interest. A forecast should appear in the main window and the observations and summary statistics can be accessed via the tabs at the top of the page. Unavailable dates will be shown in light gray. Webpage updates within 5 min of a valid observation being available.



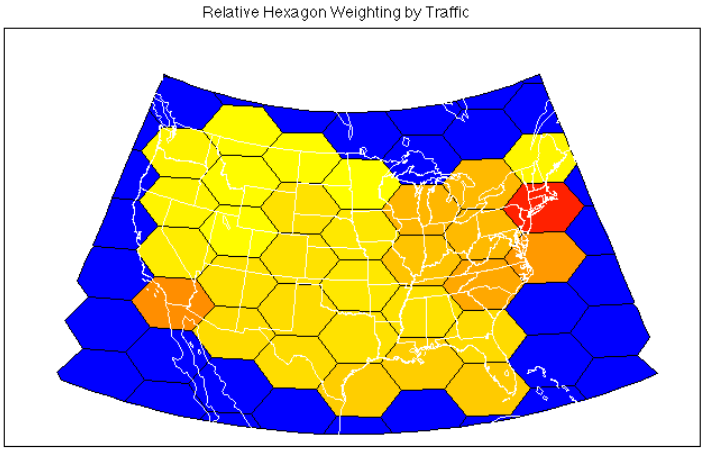
Summary statistics

Upper Left: Quick NAS Impact View, skill of current forecast is the medium impact threshold CSI
Upper Right: Consistency of NAS Impact for the given valid time
Lower Left: Summary of skill of the current forecast at the medium threshold (yellow)
Lower right: Summary of skill of the current forecast at the high threshold (red)

Text at the bottom of the lower boxes provides information on the skill of the current forecast relative to other forecasts at the same issuance and lead time for the given year of the selected forecast. Also appearing is the skill of the current forecast relative to forecasts with similar NAS impacts.

Summary NAS Impact

Hexagons overlaying the CONUS are weighted higher in regions where air traffic density is the highest for NAS impact summaries. Notice the higher weights over NY and surrounding hexagons, which highlight the high density of traffic in the NE US.



Summary statistics for days with similar NAS impact are based on the year for the issuance time selected. Similar days are grouped by examining the skill of other forecasts within ±5% of the selected forecast's NAS impact percentile (i.e. not all low impact forecasts are considered when looking at similar NAS impact days).

Ranges and Colors for Skill

	POD	FAR	CSI	Bias
Excellent	0.8-1.0	0.0-0.2	0.7-1.0	0.8-1.25
Good	0.6-0.8	0.2-0.4	0.5-0.7	0.57-0.8, 1.25-1.75
Acceptable	0.4-0.6	0.4-0.6	0.3-0.5	0.5-0.57, 1.75-2
Poor	0.2-0.4	0.6-0.8	0.15-0.3	0.4-0.5, 2-2.5
Very Poor	0.0-0.2	0.8-1.0	0.0-0.15	-Inf-0.4, 2.5-Inf

Ranges and Colors for Impact

	Weighted Impact
High	1.61-Inf
Medium-High	1.34-1.61
Medium	1.01-1.34
Low-Medium	0.66-1.01
Low	0.0-0.66

CCFP Recategorization Table

	2-h lead	4-h lead	6-h lead
Sparse/Low	0.0464	0.0393	0.0362
Sparse/High	0.0977	0.0775	0.0676
Medium and Above	0.2038	0.1487	0.1315
All Lines	0.1790	0.1410	0.1250

All lines (medium and high coverage) were calibrated into one group due to the rarity of high coverage lines compared to medium coverage lines in the 2011 dataset.

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References:

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